

ABSTRACT OF THE DISCLOSURE

Components, assemblies and methods for creating seals in ultrahigh pressure fluid containment systems, are shown and described. Embodiments of the invention allow abutting components of like materials to be compressed against each other without the need of an intermediate gasket or other structure, and reduce relative movement between the abutting parts to increase the useful life of the components. Embodiments of the invention incorporate a first component with a tapered mouth having a curved cross-sectional profile, and a complementary component having a mouth with a linear cross-sectional profile. The profiles contact each other at a tangential contact angle ranging between 40 and 68 degrees with respect to the radial axis of the components.

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